

REMARKS

Claims 1-14 and 16-23 are currently pending in the application. Claims 1-2, 4, 11, and 14 have been amended. Claim 15 has been canceled. New claims 16-23 have been added. Applicant respectfully requests reconsideration of the application in view of the foregoing amendments and the following remarks.

The drawings stand objected to due to various handwritten annotations. In response, Applicant submits formal drawings.

Claims 6-8 have been indicated as allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicant appreciates the Examiner's indication of allowable subject matter.

Claims 1, 11-12, and 14-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,373,507 to Skold ("Skold"). Independent claim 1 relates to a method of estimating a transmission channel in a digital communications system. Applicant respectfully submits that Skold fails to teach or suggest at least one of the distinguishing features of amended independent claim 1, namely, using any consecutive $m+15$ symbols of a 26-symbol training sequence to estimate a transmission channel for different channel spans m .

Skold is related to a device and method for providing a robust channel estimate in a TDMA radio communications system. Skold teaches calculating a center of energy value (w) of a first vector having M correlation values between a synchronization sequence and M parts of a signal frame, which are partially overlapping and mutually displaced one sampling interval. The value w is then rounded to a nearest integer to form a preliminary window center position m_w in the first vector. In contrast to amended claim 1, in Skold, a rough channel estimation is performed using only the central 16 symbols of a training sequence. Applicant respectfully submits that claim 1 distinguishes over Skold and is in condition for allowance. Withdrawal of the rejection of amended claim 1 as anticipated by Skold is respectfully requested.

Independent claim 11 relates to a method for estimating a transmission channel in a digital communications system. Applicant respectfully submits that Skold fails to teach or

suggest at least one of the distinguishing features of amended independent claim 11, namely, using any consecutive $m+15$ symbols of a 26-symbol training sequence to estimate a transmission channel for different channel spans m . In contrast to amended claim 11, in Skold, a rough channel estimation is performed using only the central 16 symbols of a training sequence. Applicant respectfully submits that claim 11 distinguishes over Skold and is in condition for allowance. Withdrawal of the rejection of amended claim 11 as anticipated by Skold is respectfully requested.

Dependent claim 12 depends from and further restricts independent claim 11 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 11, dependent claim 12 distinguishes over Skold and is in condition for allowance. Withdrawal of the rejection of dependent claim 12 is respectfully requested.

Independent claim 14 relates to an apparatus for estimating a transmission channel in a digital communications system. Applicant respectfully submits that Skold fails to teach or suggest at least one of the distinguishing features of amended independent claim 14, namely, using any consecutive $m+15$ symbols of a 26-symbol training sequence for estimating a transmission channel for different channel spans m . In contrast to amended claim 14, in Skold, a rough channel estimation is performed using only the central 16-symbols of a training sequence. Applicant respectfully submits that claim 14 distinguishes over Skold and is in condition for allowance. Withdrawal of the rejection of amended claim 14 as anticipated by Skold is respectfully requested.

Claims 2-5, 9-10, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,084,862 to Bjork et al. (“Bjork”) in view of Skold. Dependent claims 2-5, and 9-10 depend from and further restrict independent claim 1 in a patentable sense. Dependent claim 12 depends from and further restrict independent claim 11 in a patentable sense. In rejecting claims 2-5, 9-10, and 12, the Examiner has further applied Bjork. Bjork has been cited as teaching a use of a Least Square Error (LSE) algorithm. Applicant respectfully submits that Bjork fails to cure the deficiencies of Skold noted above with respect to independent claims 1 and 11. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1 and 11, respectively,

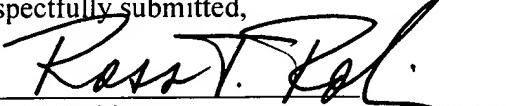
dependent claims 1-5, 9-10, and 12 distinguish over the cited combination of Skold and Bjork and respectfully requests that the rejection thereof be withdrawn.

New claims 16-17 depend from and further restrict independent claims 1 in a patentable sense. New claims 18-20 depend from and further restrict independent claims 11 in a patentable sense. New claims 21-23 depend from and further restrict independent claims 14 in a patentable sense. Applicant respectfully submits that, for at least the reasons set forth above with respect to the rejection of independent claim 1, 11, and 14, respectively, dependent claims 16-23 are also in condition for allowance.

In view of the above amendment, Applicant respectfully submits that the pending application is in condition for allowance.

Dated: *Dec. 7, 2004*

Respectfully submitted,

By 
Ross T. Robinson

Registration No.: 47,031
JENKENS & GILCHRIST, A PROFESSIONAL
CORPORATION
1445 Ross Avenue, Suite 3200
Dallas, Texas 75202
(214) 855-4500
Attorneys For Applicant